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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/191,577 11/13/98 FREES

G SA998163/305

EXAMINER

WM02/0104

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CASTROL A

ART UNIT

PAPER NUMBER

2652

DATE MAILED:

01/04/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/191,577

Applicant(s)
Gregory M. FREES et al

Examiner
Angel Castro

Group Art Unit
2652

☒ Responsive to communication(s) filed on Oct 10, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-51 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-51 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 9

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

This Office Action is in response to the Amendment A filed on 10/10/2000.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-4, 6-8, 31, 33-34, 36-38, 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Kirkwood (U.S. Pat. 6,045,112).

As per claims 1-4, 6-8, 31, 33-34, 36-38 and 46, Kirkwood discloses a mounting interface (figures 1, 1A) for providing a steadfast relationship between a motor 22 and a baseplate 50, the mounting interface comprising at least three surface points 58 forming a single plane acting as a common boundary between the motor and the baseplate, the positions of the at least three surface points being selected to affect a vibrational characteristic of the motor (column 3, lines 54-62 and column 4, lines 44-47).

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 16-20, 21-23, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkwood.

As per claims 16-19, 21-23, Kirkwood discloses a mounting interface described supra. Kirkwood does not disclose the data storage system comprising a storage medium, an actuator and a spindle motor for rotating the storage medium. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the mounting interface of Kirkwood into a data storage system comprising a storage medium and an actuator and a spindle motor for rotating the storage medium. The rationale is as follows: one of ordinary skill in the art would have been motivated to incorporate the mounting interface of Kirkwood into a data storage system comprising a storage medium, an actuator and a spindle motor for rotating the storage medium as it would reduce the vibration of the spindle motor as well as the acoustical noise.

As per claims 5, 20 and 35, Kirkwood does not disclose that the at least three surface points provides reduced contact area and lowering the resonant frequencies. Official Notice is

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given that it was notoriously old and well known to lower the resonant frequencies by reducing the contact areas between the motor and the baseplate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to lower the resonant frequencies by reducing the contact areas between the motor and the baseplate. The motivation would have been: lowering the resonant frequencies would prevent a possible damage to the motor and a disk attached to it.

As per claim 32, Kirkwood does not disclose forming the mounting interface on the baseplate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mounting interface of Kirkwood on the baseplate. The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the mounting interface of Kirkwood on the baseplate as it would simplify the mounting of the motor.

5. Claims 9-15, 24-30, 39-45, 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkwood in view of Merriman, Jr. (U.S. Pat. 5,126,607).

As per claims 9-15, 24-30, 39-45, 47-51, Kirkwood discloses a mounting interface described supra. Kirkwood does not disclose a damping ring between the at least three surface points. Merriman, Jr. discloses a motor vibration isolator (figures 1-8) with a mounting interface 10 comprising a damping ring 20, 22, with a portion 22-3 disposed perpendicular to the single plane on an outer surface of at least three point of the mounting interface and a seal 20. It would have been obvious to one of ordinary skill in the art at the time the invention was

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made to provide the mounting interface of Kirkwood with the damping ring and seal as taught by Merriman, Jr. The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the mounting interface of Kirkwood with the damping ring and seal as taught by Merriman, Jr. as it would isolate the motor from the baseplate and provide a circular locating step.

Response to Arguments

6. Applicant's arguments with respect to claims 1-51 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dubois discloses a low frequency vibration absorber; Wilson discloses a cushioned mounting arrangement for a motor housing; Itakura et al discloses an anisotropic damper.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until

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after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel Castro whose telephone number is (703) 308-8435.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached at (703) 305-9687. The fax phone number for this Group Art Unit is (703) 308-9051 (formal faxes only). For informal faxes, the fax number is (703) 305-7201.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Angel Castro, Ph.D.

December 26, 2000


DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
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